

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: J. Yoshida et al. : Art Unit:  
Serial No.: To be Assigned : Examiner:  
Filed: Herewith :  
FOR: TRANSMITTING APPARATUS, :  
TRANSMITTING METHOD, SOURCE :  
PACKET GENERATING APPARATUS,  
SOURCE PACKET GENERATING  
METHOD, PACKET MODE  
DETERMINING METHOD, MEDIUM  
AND PROGRAM

## PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

S I R :

Please amend the above-identified application as follows:

SPECIFICATION:

Specification at page 10, line 8:

One aspect of the present invention is a transmitting apparatus for transmitting a source packet constructed of a pair of data of a source packet data and a source packet header including a time stamp, comprising:

Specification at page 10, line 22:

Another aspect of the present invention is the transmitting apparatus according to 1st invention, wherein said transmission packet generating means outputs (N-1) units of dummy transmission packet data to said data outputting means,

Specification at page 11, line 6:

Still another aspect of the present invention is a transmitting apparatus for transmitting a source packet constructed of a pair of data of the source packet data and a source packet header including a time stamp, comprising:

Specification at page 12, line 3:

Yet still another aspect of the present invention is the transmitting apparatus according to 3rd invention, wherein said M is 2, 4 or 8.

Specification at page 12, line 6:

Still yet another aspect of the present invention is the transmitting apparatus, wherein K units of said source packets having variable length or fixed length with  $K \geq 1$  are inputted as a group to said transmission packet generating means.

Specification at page 12, line 11:

A further aspect of the present invention is the transmitting apparatus,

Specification at page 13, line 1:

A still further aspect of the present invention is the transmitting apparatus, wherein data of said source packet are a transport stream packet of MPEG.

Specification at page 13, line 5:

A yet further aspect of the present invention is the transmitting apparatus, wherein said time stamp is expressed with Cycle\_Count and Cycle\_Offset of CycleTimeRegister of IEEE1394 standards, and

Specification at page 13, line 11:

A still yet further aspect of the present invention is a packet mode determining method,

Specification at page 16, line 8:

An additional aspect of the present invention is the packet mode determining method, wherein  $N=1$ ,  $X1=1$ , and  $Y1=0$  in case of initially received said source packet.

Specification at page 16, line 12:

A still additional aspect of the present invention is a packet mode determining method;

Specification at page 20, line 18:

A yet additional aspect of the present invention is the packet mode determining method, wherein  $N=1$  and  $J=0$  are given in case of initially received said source packet, and  $X1=0$  and  $Y1=0$  are given in case of said source packet located in the head amount  $T$  units of said source packets.

Specification at page 21, line 1:

A still yet additional aspect of the present invention is a packet mode determining method,

Specification at page 21, line 17:

A supplementary aspect of the present invention is the packet mode determining method, wherein  $N=1$  and  $A=0$  in case of initially received said source packet.

Specification at page 21, line 20:

A still supplementary aspect of the present invention is the packet mode determining method, wherein said  $M$  is a value designated in advance.

Specification at page 22, line 1:

A yet supplementary aspect of the present invention is the packet mode determining method, wherein said  $M$  is a value designated in advance.

Specification at page 22, line 4:

A still yet supplementary aspect of the present invention is the packet mode determining method, wherein said M is received in a pair with said source packet.

Specification at page 22, line 7:

Another aspect of the present invention is the packet mode determining method, that said M is received in a pair with said source packet.

Specification at page 22, line 10:

Still another aspect of the present invention is the packet mode determining method, wherein said M is 2, 4 or 8.

Specification at page 22, line 13:

Yet still another aspect of the present invention is the packet mode determining method, wherein data of said source packet are an MPEG transport stream packet.

Specification at page 22, line 17:

Still yet another aspect of the present invention is the packet mode determining method,

Specification at page 22, line 23:

A further aspect of the present invention is a source packet generating apparatus, comprising:

Specification at page 23, line 14:

A still further aspect of the present invention is the source packet generating apparatus, wherein in the case where a predetermined data packet in said data packet is given as a first data packet and the data packet other than said first data packet in said data packet is given as a second data packet, said time information adding means determines a value of time stamp to be added to said second data packet based on a value subject to conversion into time difference in said second clock from difference in said transmission timing in said first clock between said first data packet and said second data packet.

Specification at page 24, line 1:

A yet further aspect of the present invention is the source packet generating apparatus, wherein said time information adding means gives a value of time stamp to be added to said first data packet being 0, and

Specification at page 24, line 9:

A still yet further aspect of the present invention is the source packet generating apparatus, wherein said time information adding means gives a value of time stamp to be added to said first data packet being a predetermined value, and

Specification at page 24, line 18:

An additional aspect of the present invention is the source packet generating apparatus, wherein said predetermined data packet is a head data packet.

Specification at page 24, line 21:

A still additional aspect of the present invention is the source packet generating apparatus, wherein in the case where a data packet adjacent to a third data packet being a data packet with an already determined value of time stamp is given as a fourth data packet, said time information adding means gives a value subject to addition of a value of said time stamp added to said third data packet to a value subject to conversion into time difference in said second clock from difference in said transmission timing in said first clock between said third data packet and said fourth data packet being a value of said time stamp to be added to fourth data packet.

Specification at page 25, line 9:

A yet additional aspect of the present invention is the source packet generating apparatus, wherein said time information adding means gives a value of time stamp to be added to a head data packet in said data packet being a predetermined value.

Specification at page 25, line 14:

A still yet additional aspect of the present invention is the source packet generating apparatus, wherein a frequency of said first clock is 27 MHz, and

Specification at page 25, line 19:

A supplementary aspect of the present invention is the source packet generating apparatus, wherein said packet generating means outputs said MPEG2 transport stream packet subject to addition of a dummy time stamp instead of outputting said MPEG2 transport stream packet to said time information adding means, and

Specification at page 26, line 3:

A still supplementary aspect of the present invention is the source packet generating apparatus, wherein said packet generating means receives an MPEG2 program stream packet and generates said MPEG2 transport stream packet from said MPEG2 program stream packet.

Specification at page 26, line 8:

A yet supplementary aspect of the present invention is the source packet generating apparatus, wherein said packet generating means receives an MPEG2 program stream packet and generates said MPEG2 transport stream packet from said MPEG2 program stream packet.

Specification at page 26, line 13:



A still yet supplementary aspect of the present invention is the source packet generating apparatus, wherein a frequency of said second clock is approximately 24.576 MHz,

Specification at page 26, line 21:

Another aspect of the present invention is the source packet generating apparatus, wherein said "output" means "output outward".

Specification at page 27, line 1:

Still another aspect of the present invention is the source packet generating apparatus, comprising buffer means of storing a data packet to which said time stamp is added as a source packet, wherein

Specification at page 27, line 10:

Yet still another aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 27, line 18:

data outputting means of producing transmission packet by adding predetermined additional information to said outputted transmission packet data and outputting said produced transmission packet outward, of the transmitting apparatus.

Specification at page 27, line 23:

Still yet another aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 28, line 19:

of the transmitting apparatus.

Specification at page 28, line 20:

A further aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 29, line 9:

of the source packet generating apparatus.

Specification at page 29, line 11:

A still further aspect of the present invention is a medium, that can be processed by a computer, and that bears a program to cause the computer to function as a whole or a part of

Specification at page 29, line 24:

of the transmitting apparatus.

Specification at page 30, line 1:

A yet further aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause the computer to function as a whole or a part of

Specification at page 30, line 22:

of the transmitting apparatus.

Specification at page 31, line 1:

A still yet further aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause the computer to function as a whole or a part of

Specification at page 31, line 14:

of the source packet generating apparatus.

Specification at page 31, line 16:

An additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method of:

Specification at page 34, line 13:

A still additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method of:

Specification at page 34, line 17:

upon receipt of a source packet of T units for one pair ( $T \geq 1$ ) constructed of a pair of data of the source packet data and a source packet

header including a time stamp, of the packet mode determining method, all or a part of:

Specification at page 38, line 20:

A yet additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method, of:

Specification at page 39, line 16:

A still yet additional aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause a computer to execute all or a part of the steps, in the packet mode determining method, of:

Specification at page 42, line 16:

A supplementary aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause a computer to execute all or a part of the steps, in the packet mode determining method of: upon receipt of a source packet of T units for one pair ( $T \geq 1$ ) constructed of a pair of data of the source packet data and a source packet header including a time stamp,

Specification at page 47, line 1:

A still supplementary aspect of the present invention is a medium capable of being processed by a computer that bears a program to

cause a computer to execute all or a part of the steps, in the packet mode determining method, of:

Specification at page 47, line 21:

A yet supplementary aspect of the present invention is a transmitting method for transmitting a source packet constructed of a pair of data of a source packet data and a source packet header including a time stamp, comprising:

Specification at page 48, line 11:

A still yet supplementary aspect of the present invention is a transmitting method for transmitting a source packet constructed of a pair of data of the source packet data and a source packet header including a time stamp, comprising:

Specification at page 49, line 8:

Another aspect of the present invention is a source packet generating method, comprising:

CLAIMS:

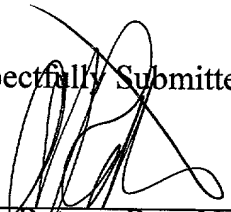
6. (Amended) The transmitting apparatus according to any of claims 1 to 4,

wherein said predetermined additional information is a CIP header, an isochronous header, a header CRC and a data CRC,

said data outputting means has: a CIP header adding means of adding said predetermined CIP header to said outputted transmission packet data; and

an IEEE1394 interface for producing said transmission packet by further adding said isochronous header, said header CRC and said data CRC to the transmission packet data to which said predetermined CIP header is added and outputting said produced transmission packet outward.

Respectfully Submitted,

  
\_\_\_\_\_  
Allan Ratner, Reg. No. 19,717  
Attorney for Applicants

AR/dlm

Enclosures: Version with Markings to Show Changes Made

Dated: August 21, 2001

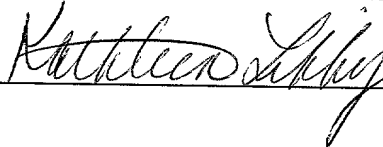
Suite 301  
One Westlakes, Berwyn  
P.O. Box 980  
Valley Forge, PA 19482-0980  
(610) 407-0700

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Date of Deposit: August 21, 2001

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\_\_\_\_\_  
Kathleen Libby

Kathleen Libby

**VERSION WITH MARKINGS TO SHOW CHANGES MADE****SPECIFICATION:**

Specification at page 10, line 8:

~~The 1st invention~~ One aspect of the present invention is a transmitting apparatus for transmitting a source packet constructed of a pair of data of a source packet data and a source packet header including a time stamp, comprising:

Specification at page 10, line 22:

~~The 2nd invention~~ Another aspect of the present invention is the transmitting apparatus according to 1st invention, wherein said transmission packet generating means outputs (N-1) units of dummy transmission packet data to said data outputting means,

Specification at page 11, line 6:

~~The 3rd invention~~ Still another aspect of the present invention is a transmitting apparatus for transmitting a source packet constructed of a pair of data of the source packet data and a source packet header including a time stamp, comprising:

Specification at page 12, line 3:

~~The 4th invention~~ Yet still another aspect of the present invention is the transmitting apparatus according to 3rd invention, wherein said M is 2, 4 or 8.

Specification at page 12, line 6:

~~The 5th invention~~ Still yet another aspect of the present invention is the transmitting apparatus ~~according to any of 1st to 4th inventions~~, wherein K units of said source packets having variable length or fixed length with  $K \geq 1$  are inputted as a group to said transmission packet generating means.

Specification at page 12, line 11:

~~The 6th invention~~ A further aspect of the present invention is the transmitting apparatus ~~according to any of 1st to 5th inventions~~,

Specification at page 13, line 1:

~~The 7th invention~~ A still further aspect of the present invention is the transmitting apparatus ~~according to 6th invention~~, wherein data of said source packet are a transport stream packet of MPEG.

Specification at page 13, line 5:

~~The 8th invention~~ A yet further aspect of the present invention is the transmitting apparatus ~~according to 7th invention~~, wherein said time stamp is expressed with Cycle\_Count and Cycle\_Offset of CycleTimeRegister of IEEE1394 standards, and



Specification at page 13, line 11:

~~The 9th invention~~ A still yet further aspect of the present invention is a packet mode determining method,

Specification at page 16, line 8:

~~The 10th invention~~ An additional aspect of the present invention is the packet mode determining method ~~according to 9th invention~~, wherein  $N=1$ ,  $X1=1$ , and  $Y1=0$  in case of initially received said source packet.

Specification at page 16, line 12:

~~The 11th invention~~ A still additional aspect of the present invention is a packet mode determining method;

Specification at page 20, line 18:

~~The 12th invention~~ A yet additional aspect of the present invention is the packet mode determining method ~~according to 11th invention~~, wherein  $N=1$  and  $J=0$  are given in case of initially received said source packet, and  $X1=0$  and  $Y1=0$  are given in case of said source packet located in the head amount  $T$  units of said source packets.

Specification at page 21, line 1:

~~The 13th invention~~ A still yet additional aspect of the present invention is a packet mode determining method,

Specification at page 21, line 17:

~~The 14th invention~~ A supplementary aspect of the present invention is the packet mode determining method according to 13th invention, wherein  $N=1$  and  $A=0$  in case of initially received said source packet.

Specification at page 21, line 20:

~~The 15th invention~~ A still supplementary aspect of the present invention is the packet mode determining method according to 13th invention, wherein said  $M$  is a value designated in advance.

Specification at page 22, line 1:

~~The 16th invention~~ A yet supplementary aspect of the present invention is the packet mode determining method according to 14th invention, wherein said  $M$  is a value designated in advance.

Specification at page 22, line 4:

~~The 17th invention~~ A still yet supplementary aspect of the present invention is the packet mode determining method according to 13th invention, wherein said  $M$  is received in a pair with said source packet.

Specification at page 22, line 7:

~~The 18th invention~~ Another aspect of the present invention is the packet mode determining method according to 14th invention, that said  $M$  is received in a pair with said source packet.

Specification at page 22, line 10:

~~The 19th invention~~ Still another aspect of the present invention is the packet mode determining method ~~according to any of 13th to 18th inventions~~, wherein said M is 2, 4 or 8.

Specification at page 22, line 13:

~~The 20th invention~~ Yet still another aspect of the present invention is the packet mode determining method ~~according to any of 9th to 18th inventions~~, wherein data of said source packet are an MPEG transport stream packet.

Specification at page 22, line 17:

~~The 21st invention~~ Still yet another aspect of the present invention is the packet mode determining method ~~according to 20th invention~~,

Specification at page 22, line 23:

~~The 22nd invention~~ A further aspect of the present invention is a source packet generating apparatus, comprising:

Specification at page 23, line 14:

~~The 23rd invention~~ A still further aspect of the present invention is the source packet generating apparatus ~~according to 22nd invention~~, wherein in the case where a predetermined data packet in said data

packet is given as a first data packet and the data packet other than said first data packet in said data packet is given as a second data packet, said time information adding means determines a value of time stamp to be added to said second data packet based on a value subject to conversion into time difference in said second clock from difference in said transmission timing in said first clock between said first data packet and said second data packet.

Specification at page 24, line 1:

~~The 24th invention~~ A yet further aspect of the present invention is the source packet generating apparatus ~~according to 23rd invention~~, wherein said time information adding means gives a value of time stamp to be added to said first data packet being 0, and

Specification at page 24, line 9:

~~The 25th invention~~ A still yet further aspect of the present invention is the source packet generating apparatus ~~according to 23rd invention~~, wherein said time information adding means gives a value of time stamp to be added to said first data packet being a predetermined value, and

Specification at page 24, line 18:

~~The 26th invention~~ An additional aspect of the present invention is the source packet generating apparatus ~~according to 23rd invention~~, wherein said predetermined data packet is a head data packet.

Specification at page 24, line 21:

~~The 27th invention~~ A still additional aspect of the present invention is the source packet generating apparatus according to 22nd invention, wherein in the case where a data packet adjacent to a third data packet being a data packet with an already determined value of time stamp is given as a fourth data packet, said time information adding means gives a value subject to addition of a value of said time stamp added to said third data packet to a value subject to conversion into time difference in said second clock from difference in said transmission timing in said first clock between said third data packet and said fourth data packet being a value of said time stamp to be added to fourth data packet.

Specification at page 25, line 9:

~~The 28th invention~~ A yet additional aspect of the present invention is the source packet generating apparatus according to 27th invention, wherein said time information adding means gives a value of time stamp to be added to a head data packet in said data packet being a predetermined value.

Specification at page 25, line 14:

~~The 29th invention~~ A still yet additional aspect of the present invention is the source packet generating apparatus according to any of 22nd to 28th inventions, wherein a frequency of said first clock is 27 MHz, and

Specification at page 25, line 19:

~~The 30th invention~~ A supplementary aspect of the present invention is the source packet generating apparatus according to 29th invention, wherein said packet generating means outputs said MPEG2 transport stream packet subject to addition of a dummy time stamp instead of outputting said MPEG2 transport stream packet to said time information adding means, and

Specification at page 26, line 3:

~~The 31st invention~~ A still supplementary aspect of the present invention is the source packet generating apparatus according to 29th invention, wherein said packet generating means receives an MPEG2 program stream packet and generates said MPEG2 transport stream packet from said MPEG2 program stream packet.

Specification at page 26, line 8:

~~The 32nd invention~~ A yet supplementary aspect of the present invention is the source packet generating apparatus according to 30th invention, wherein said packet generating means receives an MPEG2 program stream packet and generates said MPEG2 transport stream packet from said MPEG2 program stream packet.

Specification at page 26, line 13:

~~The 33rd invention~~ A still yet supplementary aspect of the present invention is the source packet generating apparatus according to 29th

~~invention~~, wherein a frequency of said second clock is approximately 24.576 MHz,

Specification at page 26, line 21:

~~The 34th invention~~ Another aspect of the present invention is the source packet generating apparatus ~~according to 22nd invention~~, wherein said "output" means "output outward".

Specification at page 27, line 1:

~~The 35th invention~~ Still another aspect of the present invention is the source packet generating apparatus ~~according to 22nd invention~~, comprising buffer means of storing a data packet to which said time stamp is added as a source packet, wherein

Specification at page 27, line 10:

~~The 36th invention~~ Yet still another aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 27, line 18:

data outputting means of producing transmission packet by adding predetermined additional information to said outputted transmission packet data and outputting said produced transmission packet outward, of the transmitting apparatus ~~according to 1st invention~~.

Specification at page 27, line 23:

~~The 37th invention~~ Still yet another aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 28, line 19:

of the transmitting apparatus ~~according to 3rd invention~~.

Specification at page 28, line 20:

~~The 38th invention~~ A further aspect of the present invention is a program to cause a computer to function as a whole or a part of:

Specification at page 29, line 9:

of the source packet generating apparatus ~~according to 22nd invention~~.

Specification at page 29, line 11:

~~The 39th invention~~ A still further aspect of the present invention is a medium, that can be processed by a computer, and that bears a program to cause the computer to function as a whole or a part of

Specification at page 29, line 24:

of the transmitting apparatus ~~according to 1st invention~~.

Specification at page 30, line 1:



~~The 40th invention~~ A yet further aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause the computer to function as a whole or a part of

Specification at page 30, line 22:

of the transmitting apparatus ~~according to 3rd invention.~~

Specification at page 31, line 1:

~~The 41st invention~~ A still yet further aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause the computer to function as a whole or a part of

Specification at page 31, line 14:

of the source packet generating apparatus ~~according to 22nd invention.~~

Specification at page 31, line 16:

~~The 42nd invention~~ An additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 9th invention~~ of:

Specification at page 34, line 13:

~~The 43rd invention~~ A still additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 11th invention~~ of:

Specification at page 34, line 17:

upon receipt of a source packet of T units for one pair ( $T \geq 1$ ) constructed of a pair of data of the source packet data and a source packet header including a time stamp, of the packet mode determining method ~~according to 11th~~, all or a part of:

Specification at page 38, line 20:

~~The 44th invention~~ A yet additional aspect of the present invention is a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 13th invention~~, of:

Specification at page 39, line 16:

~~The 45th invention~~ A still yet additional aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 9th invention~~, of:

Specification at page 42, line 16:

~~The 46th invention~~ A supplementary aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 11th invention~~ of: upon receipt of a source packet of T units for one pair ( $T \geq 1$ ) constructed of a pair

of data of the source packet data and a source packet header including a time stamp,

Specification at page 47, line 1:

~~The 47th invention~~ A still supplementary aspect of the present invention is a medium capable of being processed by a computer that bears a program to cause a computer to execute all or a part of the steps, in the packet mode determining method ~~according to 13th invention~~, of:

Specification at page 47, line 21:

~~The 48th invention~~ A yet supplementary aspect of the present invention is a transmitting method for transmitting a source packet constructed of a pair of data of a source packet data and a source packet header including a time stamp, comprising:

Specification at page 48, line 11:

~~The 49th invention~~ A still yet supplementary aspect of the present invention is a transmitting method for transmitting a source packet constructed of a pair of data of the source packet data and a source packet header including a time stamp, comprising:

Specification at page 49, line 8:

~~The 50th invention~~ Another aspect of the present invention is a source packet generating method, comprising:

CLAIMS:

6. (Amended) The transmitting apparatus according to any of claims 1 to ~~54~~,

wherein said predetermined additional information is a CIP header, an isochronous header, a header CRC and a data CRC,

said data outputting means has: a CIP header adding means of adding said predetermined CIP header to said outputted transmission packet data; and

an IEEE1394 interface for producing said transmission packet by further adding said isochronous header, said header CRC and said data CRC to the transmission packet data to which said predetermined CIP header is added and outputting said produced transmission packet outward.